

APPENDIX B

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1. (Amended) An isolated *dwf7* polynucleotide that imparts at least one *dwf7* mutant phenotype when expressed in a plant, said polynucleotide selected from the group consisting of (a) a polynucleotide comprising the nucleotide sequence depicted at positions 143 to 322, inclusive, of SEQ ID NO:20; (b) a polynucleotide comprising the nucleotide sequence depicted at positions 143 to 1552, inclusive, of SEQ ID NO:20; (c) a polynucleotide comprising a nucleotide sequence having at least 70% identity to the nucleotide sequence of (a) or (b); (d) a fragment of (a), (b) or (c) comprising at least 15 contiguous nucleotides; and (e) complements of (a), (b), (c), (d) or (e).

2. (Amended) The isolated *dwf7* polynucleotide of claim 1, wherein said polynucleotide comprises the nucleotide sequence depicted at positions 143 to 322, inclusive, of SEQ ID NO:20 or the complement thereof.

3. (Amended) The isolated *dwf7* polynucleotide of claim 1, wherein said polynucleotide comprises the nucleotide sequence depicted at positions 143 to 1552, inclusive, of SEQ ID NO:20 or the complement thereof.

4. (Amended) The isolated *dwf7* polynucleotide of claim 1, wherein said polynucleotide consists of the nucleotide sequence depicted at positions 143 to 322, inclusive, of SEQ ID NO:20 or the complement thereof.

5. (Amended) The isolated *dwf7* mutant polynucleotide of claim 1, wherein said polynucleotide consists of the nucleotide sequence depicted at positions 143 to 1552, inclusive, of SEQ ID NO:20 or the complement thereof.

8. A recombinant vector comprising:  
(a) the isolated *dwf7* polynucleotide of claim 1; and  
(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

10. A host cell transformed with the recombinant vector of claim 8.

12. A method of producing a DWF7 polypeptide comprising:  
(a) providing a population of host cells according to claim 10; and  
(b) culturing said population of cells under conditions whereby the DWF7 polypeptide encoded by the coding sequence present in said recombinant vector is expressed.

14. A transgenic plant comprising the polynucleotide of claim 1.

16. A method of producing a transgenic plant comprising the steps of:  
(a) introducing the polynucleotide of claim 1 into a plant cell to produce a transformed plant cell; and  
(b) producing a transgenic plant from the transformed plant cell.

18. (Amended) A method for altering the sterol composition of a plant relative to the wild-type plant comprising:

(a) introducing a polynucleotide comprising the nucleotide sequence depicted at positions 143 to 322, inclusive, of SEQ ID NO:20 or a polynucleotide comprising the nucleotide sequence depicted at positions 143 to 1552, inclusive, of SEQ ID NO:20 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell, said transgenic plant having an altered sterol composition relative to the wild-type plant.

20. The method of claim 18, wherein the transgenic plant has less cholesterol relative to the wild-type plant.

22. The method of claim 18, wherein the transgenic plant has increased sterol production relative to the wild-type plant.

36. (New) A recombinant vector comprising:

(a) the isolated *dwf7* polynucleotide of claim 2; and

(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

37. (New) A host cell transformed with the recombinant vector of claim 36.

38. (New) A transgenic plant comprising the polynucleotide of claim 2.

39. (New) A method of producing a transgenic plant comprising the steps of:

(a) introducing the polynucleotide of claim 2 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell.

40. (New) A recombinant vector comprising:

(a) the isolated *dwf7* polynucleotide of claim 3; and

(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

41. (New) A host cell transformed with the recombinant vector of claim 40.

42. (New) A transgenic plant comprising the polynucleotide of claim 3.

43. (New) A method of producing a transgenic plant comprising the steps of:

(a) introducing the polynucleotide of claim 3 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell.

44. (New) A recombinant vector comprising:

(a) the isolated *dwf7* polynucleotide of claim 4; and

(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

45. (New) A host cell transformed with the recombinant vector of claim 44.

46. (New) A transgenic plant comprising the polynucleotide of claim 4.

47. (New) A method of producing a transgenic plant comprising the steps of:

(a) introducing the polynucleotide of claim 4 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell.

48. (New) A recombinant vector comprising:  
(a) the isolated *dwf7* polynucleotide of claim 5; and  
(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

49. (New) A host cell transformed with the recombinant vector of claim 48.

50. (New) A transgenic plant comprising the polynucleotide of claim 5.

51. (New) A method of producing a transgenic plant comprising the steps of:  
(a) introducing the polynucleotide of claim 5 into a plant cell to produce a transformed plant cell; and  
(b) producing a transgenic plant from the transformed plant cell.

52. (New) The method of claim 16, wherein the transgenic plant has a phenotype selected from the group consisting of altered cell length, altered periods of flowering, altered branching, altered seed production, altered leaf size, altered plant height, altered sterol composition, prolonged life, increased growth in the dark, GA modulation, and altered plant growth and development.

53. (New) The method of claim 52, wherein the phenotype is altered plant growth development is in the dark.

54. (New) A method of producing a transgenic plant comprising the steps of:  
(a) introducing the polynucleotide having sequence ID No.19 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell.

55. (New) The method of claim 54, wherein the transgenic plant has a phenotype selected from the group consisting of altered cell length, altered periods of flowering, altered branching, altered seed production, altered leaf size, altered plant height, altered sterol composition, prolonged life, increased growth in the dark, GA modulation, and altered plant growth and development.

56. (New) The method of claim 55, wherein the phenotype is altered plant growth development is in the dark.